

## CURRICULUM VITAE:      Kumaraswamy (Vela) Velupillai

### Current Status

*Senior Visiting Professor* [since 1999]  
Madras School of Economics,  
Chennai, India

&

*Professor Emeritus*  
NUI Galway  
Ireland

### Most recent appointments

January, 2013 – July, 2015  
*Distinguished Professor of Economics*  
Department of Economics  
The New School of Social Research  
6 East 16<sup>th</sup> Street  
New York, NY 10003  
USA                                      (resigned on June, 30, 2015)

November, 2001 – January, 2015  
*Professore di Chiara Fama*  
& Founding Director, *Algorithmic Social Science Research Unit (ASSRU)*  
Department of Economics  
University of Trento  
Via Inama, 5  
381 22 Trento  
Italy                                      (opted for early retirement on 31<sup>st</sup> January, 2015)

Preferred e-mail: [kvelupillai@gmail.com](mailto:kvelupillai@gmail.com)

I am the founding Director of the *Algorithmic Social Sciences Research Unit (ASSRU)*, within the department of economics at the University of Trento. It is, after my retirement at Trento, an independent web site, at [www.assru.org](http://www.assru.org).

Date & place of birth:                                      September 25, 1947; Colombo, Sri Lanka  
Citizenship:    Swedish  
Languages (in the order of fluency): Tamil (Mother tongue), English, Swedish, Italian, Singhalese, Japanese (and some German & Spanish).

### Academic

1979-80: Ph.D.    King's College, Cambridge University (1973-76), England.  
[Thesis: "*Aspects of the Structural Dynamics of Capitalist Economies*"; Supervisors: Professor Lord Kaldor (Michaelmas & Lent Terms, 1973/74 *only*) & Professor Richard M Goodwin (from Lent Term, 1974 – till the rest of *his* life)]

- 1973: M.Soc.Sc. University of Lund, Lund, Sweden  
[Thesis: "*Some Cybernetic Approaches to Macroeconomics*";  
Supervisor: Professor Björn Thalberg]
- 1970: September-December Swedish Language (Intensive Course), KV, University of  
Lund, Lund, Sweden
- 1970: B.E. Kyoto University, Kyoto, Japan  
[Undergraduate Thesis Supervisor: Professor Keiji Okushima]
- May, 1965 – March, 1966: Chiba University, Chiba, Japan  
Japanese Language & General Science
- 1959 - 1965: High School, Royal College, Colombo, Ceylon
- 1953 – 1958: Primary School, Royal Primary School, Colombo, Ceylon

### **Scholarships/Fellowships and other awards**

- Various Academic and Sports awards at primary and high schools
- Japanese Government ('*Mombusho*': Ministry of Education) Scholarship for Undergraduate Education in Japan, 1965-1970.
- Swedish Government (University) award ('*Doktorand Stipendium*') for doctoral studies at Lund and Cambridge Universities, 1973-75.
- C.O.R.E Research Fellowship, 1977-78.
- Fitzwilliam College, Cambridge, Elected to a Teaching Fellowship, 1981 (declined)
- US National Science Foundation/Ford Foundation Visiting Professorship at the People's University, Beijing, China, 1988.
- Invited to give the Fourth *Arne Ryde Lectures*, University of Lund, Lund, Sweden, 1994.
- *Honorary Professor of Economics*, Queen's University of Belfast, 1998-2003.
- Central Bank of Uruguay Distinguished Invited Lecturer, 1998, Montevideo, Uruguay.
- Visiting Fellow, Peterhouse, Cambridge, Lent & Easter Terms, 2001.
- Japan Society for the Promotion of the Sciences, Visiting Professor at Kyoto University, 2003-4 (declined).
- Elected *Foreign Corresponding Member*, Brazilian Academy of Philosophy, April, 2006.
- Elected Official Fellow, Girton College, Cambridge, September, 2006.
- Awarded the '*2009 Nord-Sud Fondazione Pescarabruzzo Prize*' for the Social Sciences.
- Appointed ***Emeritus Professor*** at the National University of Ireland, Galway, Ireland, November, 2009.
- Gave the 19<sup>th</sup> ***Herbert Simon Lectures*** at the National Chengchi University, Taipei, Taiwan, 17<sup>th</sup> and 23<sup>rd</sup> March, 2010.
- Gave the 18<sup>th</sup> ***Krishna Bharadwaj Lecture*** at Jawaharlal Nehru University, New Delhi, 8<sup>th</sup> March, 2010.
- Elected *Fellow*, ***Institute of Advanced Study***, Jawaharlal Nehru University, New Delhi, March, 2010.
- Elected *Foreign Member*, Moral Sciences Division of the Juridical, Political and Economic Sciences, ***Istituto Lombardo***, July, 2010.
- A *Festschrift* in my 'honour' was published in February, 2010. See:  
<http://www.routledge.com/books/details/9780415492638/>

- A Special Issue of **New Mathematics and Natural Computation** in my ‘honour’ was published in March, 2012.

## **Main Past Academic and Professional Appointments**

2006-2008

Fellow, College Lecturer & Director of Studies in Economics, Girton College, Cambridge

2001-2008

*John E. Cairnes Professor of Economics* (tenured), Department of Economics, National University of Ireland, Galway, Republic of Ireland (opted for early retirement in August, 2008)

1995-1998

Professor of Economics (tenured) Department of Economics, Queen’s University of Belfast (resigned in 1998).

1994-95

Senior Research Fellow, Statistics Norway, Oslo, Norway.

1993 (Sep-Dec)

Visiting Professor at the Central European University, Prague

1993 (July-Aug)

Consultant, International Economics and Socio-Economic Data Division, The World Bank, Washington D.C.

1991-93

Associate Director, *Center for Computable Economics (CCE)* and Adjunct (Full) Professor (appointed for the period 1993-1998, resigned in 1993), Department of Economics, UCLA. I coined the phrase *Computable Economics* and was the main force behind the intellectual creation and the research program of CCE.

1986-90:

Professor (tenured) of Macroeconomics Aalborg University (resigned in 1988); and Visiting Professorships at the *Institute d’Etudes Politiques de Paris*, UCLA, Universities of Copenhagen and Modena.

1981-85:

Professor of Economics at the European University Institute, Florence; Consultant to UN-ESCAP (1981) on Development Planning and to the UNDP (1982).

1980-81:

Director of Studies (Economics), Peterhouse, Cambridge; Research Associate (Economics), Energy Research Group, Cavendish Laboratory and Associate Fellow, Clare Hall, Cambridge University.

1975-79:

Research positions at Imperial College, London; and at the University of Lund and the Universite Catholique de Louvain (C.O.R.E).

## **Editorial and Advisory Activities**

- Associate Editor (1987), *Journal of Economic Dynamics and Control* (JEDC) and from, January 1, 1991, JEDC *Book Review Editor*, North-Holland Publishers (resigned in 1997).
- Associate Editor *Journal of Computational Economics*, Kluwer Academic Publishers, 1991-1997 (resigned in 1997) – reappointed in 2016..
- From February, 2002: Series Editor (jointly with Francesco Luna of the IMF till 2009; from 2010, jointly with Stefano Zambelli on the University of Trento), **Routledge Series** on *Computable and Experimental Economics*.
- 2002: Invited Editor for a Special Issue of *Metroeconomica* on ‘*Computability, Constructivity and Complexity in Economics*’.
- From 2004: Member, Editorial Board **Springer Series** on *Complexity*
- From 2006: Series Editor, **Routledge Major Works Series** on *New Trends & Frontiers in Economic Theory*
- From 2009: Member, Board of Advisory Editors, *Economia Politica/ Journal of Analytical and institutional Economics*, Springer-Verlag.
- From 2010: Member, Board of Editors, *Local and Global Economic Review* (from January 2015, Honorary Editor).
- From 2011/12: Member, Editorial Board, *Interdisciplinary Journal of Economics and Business Law* (resigned at the end of 2015).
- Editor (jointly with Professor Gianni Pegoretti and Professor Stefano Zambelli) of a *Special Issue* of *Economia Politica*, commemorating the 60<sup>th</sup> Anniversary of the MONIAC, Issue 3, 2011.
- Guest Editor, **Cambridge Journal of Economics**, *Special Issue* to Commemorate the Richard Goodwin Centennial, 2015. A ‘launching’ ceremony for this Special Issue was held at Peterhouse, on 10, December, 2015, jointly sponsored by the College (of which Goodwin was a Fellow for 24 years and I his successor as the *Director of Studies in Economics*) and the Journal.
- Member, *Turing Centenary Advisory Committee* (TCAC);  
<http://www.mathcomp.leeds.ac.uk/turing2012/>
- Editorial Board Member, *The Society for Modelling & Simulation International* (SCS)  
- <http://www.scs.org/>
- Standing Member, *Professorial Evaluation Committee*, University of Malaya, Kuala Lumpur, Malaysia, [from] 2014.

- Guest Editor, Special Issue of **Computational Economics** to Commemorate the Birth Centennial of Herbert Simon (2016/2017).

### **Ph. D, MA/MSc & BA Thesis/Dissertation guidance/supervision:**

Supervision to completion of PhD dissertations in: Cambridge (2), Florence (3), Modena (3) Aalborg (1), UCLA (5), NUI Galway (1), Trento (3). In 2013/14 I was on three (final) doctoral dissertation committees at NSSR.

Supervision to completion scores of dissertations in Italy, Ireland and the UK at MA/MSc and Undergraduate levels.

Ph.D Examiner at Universities in Australia (University of Technology, Sydney), Denmark (Aalborg University), France (*Institute d'Etudes Politiques de Paris*), Italy (European University Institute, Fiesole; University of Modena), Malaysia (University of Malaya), Sweden (University of Lund), UK (University of Wales, Cardiff; Cambridge University) and USA (UCLA & NSSR), Spain (University of Alcala).

#### **Referee work (since 1978):**

For: *Econometrica*, *Economic Journal*, *Journal of Economic Dynamics and Control*, *Journal of Economic Behavior and Organization*, *Cambridge Journal of Economics*, *Journal of Economic Theory*, *Zeitschrift für Nationalökonomie*, *Taiwan Journal of Political Economy*, *Journal of Econometrics*, *Journal of Evolutionary Economics*, *Journal of Economic Surveys*, *The Scottish Journal of Political Economy*, *Metroeconomica*, *Journal of Macroeconomics*, *Computational Economics*, *European Journal of the History of Economic Thought*, *Structural Change and Economic Dynamics*, *Economic Issues*, *Mind & Society*, *Erasmus Journal for Philosophy and Economics*, *Local & Global Economic Review*, *International Review of Economics*, *Journal of Economic Methodology*, *Applied Mathematics and Computation*, *Mathematical Social Sciences*, *Journal of Mathematical Economics*, *Economia Politica*, *Net Journal of Social Science (NJSS)* and *Mathematical Reviews*.

Referee/Reviewer of Book Manuscripts and Essays for Books for various leading publishers (Routledge, Blackwell, Oxford University Press, Springer-Verlag, Macmillan/Palgrave, Elsevier, etc.).

### **Invited Lectures/Seminars:**

Universities of Mannheim (1985) and Frankfurt (1993) in Germany; Aarhus in Denmark (1985); Siena, Bergamo (1986), Trento, Pisa (Scuola Normale) (1982), Bologna, John Hopkins (Bologna) (1986), Modena, Einaudi Foundation (Turin), Enrico Mattei Foundation (Milan) (1996), Venice in Italy (1999); the O.F.C.E. in Paris (2000); University of Inner Mongolia in the Peoples' Republic of China (1988), Institute of Advanced Study in Vienna, Austria (1989); The Chinese Academy of Science in Beijing and Taipei; National Chengchi and National Chung Cheng Universities, in Taiwan (1992, 1996); the Hungarian Academy of Sciences (1993); the Universities of California (Irvine) (1990), South Carolina (1991), University of Southern California and James Madison University (2005), in the US (1992); University of Strathclyde (1981), Exeter University (1997) and Cambridge University in the UK (1994); University of Malaya (1996), the Malaysian Institute of Economic Research and the Economic Planning Unit, in Malaysia (1996); University of Gothenburg in Sweden (1994); Di Tella Institute in Buenos Aires, Argentina (1993); Marga Institute in Colombo, Sri Lanka (2000); UNAM in Mexico City (1997, 1998), the National University of Ireland in Galway (1999)

and Jawaharlal Nehru University, New Delhi (2010), New School for Social Research (New York, 2012 & 2013), Johns Hopkins University (2013).

## **Teaching Experience**

I have taught at the undergraduate and postgraduate levels in Cambridge (UK), European University Institute, Florence (Fiesole), University of Lund (in Swedish), University of Modena (Italy), Universities of Copenhagen and Aalborg (Denmark), UCLA, Beijing, Central European University, Prague, the Queen's University of Belfast, Madras School of Economics, University of Trento (in Italian), the National University of Ireland, Galway and the New School for Social Research (New York).

### At the undergraduate level:

- (a). Capital and Time (Cambridge).
- (b). Principles of Economics (Aalborg – in Swedish).
- (c). Macroeconomics (UCLA, Aalborg – in Swedish, Beijing, Queen's, Trento).
- (d). Capital Theory (Lund).
- (e). Growth Theory (Lund).
- (f). History of Economic Theory (UCLA, Aalborg and Trento).
- (g). Computational Economics (UCLA).
- (h). Development Economics (Queen's University, Belfast).
- (i). Quantitative Methods in Economics (Queen's University, Belfast)
- (j). The Pure Theory of International Trade (Trento - in Italian, academic year 1999-2000.)
- (k). International Monetary Economics (Trento - in Italian, academic year, 1999-2000 and 2000-1).
- (l). Evolution of Financial Institutions (The New School/Lang, Spring, 2014).

### At the postgraduate level (Regularly, since 1983):

- (a). Trade Cycle Theory (Aalborg, UCLA, Copenhagen, Modena, Beijing and NSSR)
- (b). Macroeconomics (UCLA, Beijing, Prague, Madras, Trento and Galway)
- (c). Estimation Theory (Florence).
- (d). Computable Economics (UCLA, CIFREM/Trento, NSSR)
- (e). History of Economic Theory (UCLA).
- (f). Public Finance (Copenhagen)
- (g). Behavioural Economics (CIFREM/Trento)
- (h). Development Economics (School of International Studies, Trento)
- (i). Mathematical Economics (NSSR)
- (j). Advanced Macroeconomics (NSSR)
- (k). Advanced Microeconomics (NSSR)

## **Graduate and Staff Seminars:**

At UCLA I organised the weekly seminar series on Computable Economics, 1990-93.

At the University of Trento, I organised the weekly departmental seminar during the academic years, 2010/11 & 2011/12.

## PUBLICATIONS

### **Books and Monographs:**

1. **Growth Cycles and Multisectoral Economics: the Goodwin Tradition** (Ed. K. Velupillai and G. Ricci), Lecture Notes in Economic and Mathematical Systems, #309, Springer-Verlag, Heidelberg and New York, 1988.
2. **Nonlinear and Mutisectoral Macrodynamics: Essays in Honor of Richard Goodwin.** (ed., by K. Velupillai)  
The Macmillan Press Ltd., Basingstoke, Hampshire, 1990.
3. **Recent Developments in Business Cycle Theory.** (ed., by K. Velupillai, N. Thygesen, and S. Zambelli), Proceedings of the IEA held in Rungsted Kyst, June 7-11, 1989  
Macmillan, London, 1991.
4. **Nonlinearities, Disequilibria and Simulation** (ed., by K. Velupillai)  
Macmillan, London, 1992.
5. **Inflation, Institutions and Information; Essays in Honour of Axel Leijonhufvud** (ed., by K. Vela Velupillai and Daniel Vaz)  
Macmillan, London, 1996.
6. **Computable Economics (The Fourth Arne Ryde Lectures)**  
Oxford University Press, January, 2000.
7. **Macroeconomic Theory and Economic Policy: Essays in Honour of Jean-Paul Fitoussi** (ed., by K. Vela Velupillai)  
Routledge, London, April, 2004.
8. **Computability, Complexity and Constructivity in Economic Analysis** (ed., by K. Vela Velupillai)  
Blackwell's Publishers, Oxford, March, 2005
9. **Computable Foundations for Economics**  
Routledge, London, February, 2010
10. **The International Library of Critical Writings in Economics: The Elgar Companion to Computable Economics**, Editor (jointly with Stefano Zambelli & Stephen Kinsella)  
Edward Elgar, Cheltenham, December, 2011

### **Books in preparation:**

1. **Lectures on Computable Economics**  
[In preparation for *Oxford University Press*, Oxford (Manuscript to be completed, Autumn/Winter, 2016)]
2. **Models of Simon**  
[With the collaboration of Dr. Selda Kao], in preparation for *Routledge*, London, to be completed in Autumn, 2016.

3. **Adventures in Nonlinear Macrodynamics** [jointly with Dr. Ragupathy Venkatachalam], Manuscript substantially completed, for Wiley-Blackwell Publications, Oxford
4. **Algorithmic Foundations of Computation, Proof and Simulation in Economics**  
Springer-Verlag, Heidelberg.
5. **Lectures on Advanced Macroeconomics**  
Elsevier [to be completed in September, 2017]
6. **Richard Goodwin: An Intellectual Biography**  
[to be completed in Autumn, 2016]

### **Articles in [Refereed] International Journals:**

1. *Cobb-Douglas or the Wicksell Production Function: A Comment*,  
**Economy and History**, Vol. XVI, 1973.
2. *A Note on the Origins of the Correspondence Principle*,  
**Swedish Journal of Economics**, Vol. 75, pp. 302-304, 1973.
3. *Irving Fisher on 'Switches of Techniques': A Historical Note*,  
**Quarterly Journal of Economics**, Vol. LXXXIX, No. 4, November, pp. 679-680, 1975.  
[Reprinted in: **Pioneers in Economics – Piero Sraffa (1898-1983)** edited by Mark Blaug,  
Edward Elgar Publishing Limited, Aldershot, 1992]
4. *Respecifying the Weighting Matrix of a Quadratic Objective Function*, (with  
B. Rustem and J.H Westcott),  
**Automatica**, Vol. 14, November, pp. 567-582, 1978.
5. *Some Stability Properties of Goodwin's Growth Cycle*,  
**Zeitschrift für Nationalökonomie**, Vol. 38 #3-4, pp. 245-257, 1979.
6. *When Workers Save - and Invest: Some Kaldorian Dynamics*,  
**Zeitschrift für Nationalökonomie**, Vol. 42, #3, pp. 247-258, 1982.
7. *Linear and Nonlinear Dynamics in Economics: The Contributions of Richard Goodwin*,  
**Economic Notes**, Vol. 11, #3, pp. 73-92, 1983.
8. *A Neo-Cambridge Model of Income Distribution and Unemployment*,  
**Journal of Post Keynesian Economics**, Vol. V, #3, Spring, pp. 454-473, 1983.
9. *A Note on Lindahl's Theory of Distribution*, (with G. Chiodi),  
**Kyklos**, Vol. 36, Fasc.1, pp. 103-111, 1983.
10. *Cooperation Between Politicians and Econometricians and the Search for  
Optimal Economic Policy*, (with B. Rustem),  
**Journal of Policy Modeling**, Vol. 6, #3, 1984.
11. *On Rationalizing Expectations Using Rank-One Updates of the Kalman Filter* (with B.  
Rustem),



- Journal of Economic Dynamics and Control**, Vol. 10, pp. 119-124, 1986.
12. *Objective Functions and the Complexity of Policy Design*, (with B. Rustem),  
**Journal of Economic Dynamics and Control**, Vol. 11, No. 2, June, pp. 185-192, 1987.
  13. *Some Swedish Stepping Stones to Modern Macroeconomics*,  
**Eastern Economic Journal**, Vol. XIV, #1, January-March, pp. 87-98, 1988.
  14. *The Existence of the Standard System: Sraffa's Constructive Proof*,  
**Political Economy – Studies in the Surplus Approach**, Vol. 5, No. 1, pp. 3-12, 1989.
  15. *Rationality, Computability and Complexity*, (with B. Rustem),  
**Journal of Economic Dynamics and Control**, Vol. 14, No. 2, May, pp. 419-432, 1990.
  16. *On Leif Johansen's Model of Economic Growth*,  
**Journal of Economic Behavior and Organization**, Vol.22, pp.153-159, 1993.
  17. *The Computable Approach to Economics*,  
**Taiwan Journal of Political Economy**, Vol. 1, No. 1, Sep., pp. 53-110, 1995.
  18. *Irving Fisher on a 'Fundamental Theorem' in Neo-Austrian Capital Theory*,  
**Journal of Institutional and Theoretical Economics/Zeitschrift für die Gesamte Staatswissenschaft**, Vol. 151, No.3, Sep., pp. 556-564, 1995.
  19. *The Unfashionable Elegance of Tsuru's Unorthodox Economics*,  
**The Journal of Economic Issues**, Vol. XXIX, No. 4, December, pp. 1213-1230, 1995.
  20. *The Computable Alternative in the Formalization of Economics: A Counterfactual Essay*,  
**Kyklos**, Vol. 49, Fasc.3, pp. 252-72. 1996.
  21. *The Economy as a Structurally Complex, Evolving Dynamical System: Goodwin's Contours*  
(jointly with L. F. Punzo).  
**Economic Notes**, Vol. 25, No. 2, p. 179-205, 1996.
  22. *An 'Unfinished' Essay on Interesting Dynamics*,  
**Taiwan Journal of Political Economy**, Vol. 2, No. 2, Sep., pp. 21-57, 1996.
  23. *Expository Notes on Computability and Complexity in (Arithmetical) Games*,  
**Journal of Economic Dynamics and Control**, Vol.21, No.6, pp. 955-79, June, 1997.
  24. *The Vintage Economist*,  
**The Journal of Economic Behavior and Organization**, Vol.37, No.1, Sep., pp. 1-31,  
1998.
  25. *Richard Goodwin: 1913-1996*  
**The Economic Journal**, Vol. 108, September, 1998, pp.1436-1449.  
[Awarded the **Anbar Prize for Excellence in Writing**]
  26. *Comportamiento Adaptable*  
**Revista De Economia (Segunda Epoca)**, Vol. V, Número 2, Nov., pp. 3-32, 1998

27. *Undecidability, Computation Universality and Minimality in Economic Dynamics*,  
**The Journal of Economic Surveys**, Vol. 13, No. 4, pp. 653-673, December, 1999.  
[Reprinted in: *Surveys in Economic Dynamics* edited by Donald A. R. George, Les Oxley  
and Simon Potter, Chapter 6, pp. 149-174; Blackwell Publishers, Oxford, 2000]
28. *Disequilibrium, Nonmaximum Macrodynamics*  
**Economic Systems Research**, Vol.11, No.2, June, pp. 113-126, 1999.
29. *The Wisdom and Wit of Sen's Contribution to Capital Theory: Some  
Sketches*,  
**Review of Development and Change**, Vol.V, No.1, January-June, pp. 1-23, 2000.
30. *Effectivity and Constructivity in Economic Theory*  
**The Journal of Economic Behavior and Organization**, Vol.49, Issue, 3, pp. 307-325,  
November, 2002.
31. *Constructivity, Computability and Computers in Economic Theory: Some Cautionary  
Notes*,  
**Metroeconomica**, Vol. 55, Issue 2-3, pp. 121-140, May 2004.
32. *Computation and Economic Dynamics: Resurrecting the *Icarus* Tradition*,  
**Metroeconomica**, Vol. 55, Issue 2-3, pp. 239-64, May, 2004.
33. *The Unreasonable Ineffectiveness of Mathematics in Economics*,  
**Cambridge Journal of Economics**, Vol. 29, Issue 6, pp. pp. 849-872, November, 2005.  
[Republished in several collected/edited works]
34. *The Algorithmic Foundations of Computable General Equilibrium Theory*,  
**Applied Mathematics and Computation**, Vol. 179, #1, August, pp. 360-9, 2006.
35. "A Disequilibrium Macrodynamics Model of Fluctuations",  
**Journal of Macroeconomics**, Vol. 28, Issue 4, December, pp. 752-767, 2006.
36. *Variations on the Theme of *Conning* in Mathematical Economics*,  
**Journal of Economic Surveys**, Vol. 21, No. 3., pp. 466-505, July, 2007.  
[Elected as one of the '25 Most Significant articles' published in the Journal in its first  
twenty five years; reprinted in: **Issues in Heterodox Economics** edited by Donald A.  
George, Chapter 4, pp. 53-93; Blackwell Publishing, Oxford, 2008.]
37. *Japanese Contributions to Non-Linear Cycle Theory in the 1950s*,  
**Japanese Economic Review**, Vol. 59, No. 1, March, pp. 54-74, 2008.
38. *Sraffa's Constructive Mathematical Economics*,  
**Journal of Economic Methodology**, Vol. 15, No.4, December, pp. 325-348, 2008.
39. *The Mathematization of Macroeconomics*,  
**Economia Politica [Journal of Analytical and Institutional Economics]**, Vol. XXV,  
Issue 3, August, pp. 283-316, 2008.

40. *Uncomputability and Undecidability in Economic Theory*,  
**Applied Mathematics and Computation**, Vol. 215, Issue 4, 15 Oct., pp. 1404-1416, 2009.
41. *Macroeconomics – A Clarifying Note*  
**Economia Politica [Journal of Analytical and Institutional Economics]**, Vol. XXVI,  
Issue 1, April, pp. 129-131, 2009.
42. *Equality, Absurdity Subjectivity: Thomas Nagel’s Passion for Exact Philosophical  
Enquiry*,  
**Economia Politica [Journal of Analytical and Institutional Economics]**, Vol. XXVI,  
Issue 1, April, pp.15-19, 2009.
43. *Towards a Theory of Economic Development without The Owl Of Minerva: An Outline  
and a Summary*,  
**Global and Local Economic Review**, Vol. 13, No. 1, pp. 5-35, 2009.
44. *Development Economics without Growth Theory*,  
**Economia Politica [Journal of Analytical and Institutional Economics]**, Vol. XXVII,  
Issue 1, pp. 9-54, 2010.
45. *Foundations of Boundedly Rational Choice and Satisficing Decisions*,  
**Advances in Decision Sciences**, April, 2010.
46. *In Praise of Anarchy in Research and Teaching*,  
**Economic and Political Weekly**, Vol. XLV, # 14, pp. 51-55, 2010.
47. *Dynamic Complexity, Nonlinearity and Emergence: An Algorithmic Interpretation*,  
**Journal of Economic Surveys**, Vol. XXV, #3, pp. 547-568, 2011.
48. *Towards an Algorithmic Revolution in Economic Theory*,  
**The Journal of Economic Surveys**, Vol. XXV, #3, pp. 401- 430, 2011 .
49. *Taming the Incomputable, Reconstructing the Nonconstructive and Deciding the  
Undecidable in Mathematical Economics*,  
**New Mathematics and Natural Computation**, Vol. 8, #1, March, 2012. [Officially the  
most downloaded article in the history of the Journal]  
["Constructive and Computable Analysis in Mathematical Economics—The Festschrift Issue  
for Prof. Kumaraswamy (Vela) Velupillai"]
50. *Reflections on Mathematical Economics in the Algorithmic Mode*,  
**New Mathematics and Natural Computation**, Vol. 8, #1, March, 2012.  
["Constructive and Computable Analysis in Mathematical Economics—The Festschrift Issue  
for Prof. Kumaraswamy (Vela) Velupillai"].
51. *The Phillips Machine and the Epistemology of Analogue Computation*,  
**Economia Politica [Journal of Analytical and Institutional Economics]**, Vol. XXVII,  
pp. 39-62, *Special Issue*, 2011.

52. *Celebrating the MONIAC: The Ways of Serendipity*, [jointly with G. Pegoretti & S. Zambelli],  
**Economia Politica [Journal of Analytical and Institutional Economics]**, Vol. XXVII, pp. 7-30, *Special Issue*, 2011.
53. *The Lovable Curmudgeon: Robert Wayne Clower*,  
**Economic & Political Weekly**, Vol. XLVI, # 24, June 11, 2011.
54. *Freedom, Anarchy and Conformism in Academic Research*,  
**The Interdisciplinary Journal of Economics and Business Law**, Vol. 1, #. 1, 2011.
55. *Ferdinando Targetti - In Memoriam: Scholar, Friend, Colleague and a Gentleman*,  
**Global & Local Economic Review**, Vol. 15, #.2, 2011.
56. *Bourbaki's Destructive Influence on the Mathematisation of Economics*,  
**Economic & Political Weekly**, Vol. XLVII, # 3, January 21, 2012.
57. *Origins and Early Development of the Nonlinear Endogenous Mathematical Theory of the Business Cycle: The Setting*, [jointly with V. Ragupathy],  
**Economia Politica [Journal of Analytical and Institutional Economics]** Vol. XXIX, no. 1, April, 45-79, 2012.
58. *Origins and Pioneers of Behavioural Economics*, [jointly with Selda Kao],  
**The Interdisciplinary Journal of Economics and Business Law**, Vol. 1, #. 3, pp. 47-73, 2012.
59. *Remembering Krishna Bharadwaj*,  
**Economic & Political Weekly**, Vol. XLVII, No. 15, April 14, 2012.
60. *Noncomputability, Unpredictability, Undecidability and Unsolvability in Economic & Finance Theories* [jointly with Ying-Fang Kao, V. Ragupathy & Stefano Zambelli],  
**Complexity**, Vol. 18, Issue 1, September/October, pp. 51-55, 2012.
61. *Turing's Economics: A Birth Centennial **Homage***,  
**Economia Politica, [Journal of Analytical and Institutional Economics]**, Vol. XXX, # 1, April, pp. 13-31, 2013.
62. *A Journey Through the Corridors of a Labyrinth*,  
**Interdisciplinary Journal of Economics and Business Law**, Vol. 2, Issue 2, pp. 93-104, 2013.
63. *A Non-Linear Model of the Trade Cycle: **Mathematical** Reflections on Hugh Hudson's Classic* [jointly with Stefano Zambelli & Ragu Ragupathy],  
**Australian Economic Papers**, Vol. 52, Issue 2, June, pp. 115-125, 2013.
64. *Towards a Political Economy of the Theory of Economic Policy*,  
**Cambridge Journal of Economics**, Vol. 38, # 6, November, 2014.
65. *Computability Theory in Economics – Frontiers and a Retrospective*, (Revised version)  
Forthcoming in: **Applied Mathematics and Computation**.

66. *It is NOT Too Late – A Nobel Prize to a Trio of Pioneers: Uzawa, Scarf and Negishi*, **Economic & Political Weekly**, Vol. XLIX, No. 7, February 15, pp. 16-19, 2014.
67. *Humbugs and other Exotica – Celebrating Anwar Shaikh*, **Global & Local Economic Review**, Vol. 17, No. 1, 2013.
68. *Computable and Computational Complexity Theoretic Bases for Herbert Simon’s Cognitive Behavioural Economics* [jointly with Ying-Fang Kao], **Cognitive Systems Research**, Vol. 29-30, September, pp. 40-52, 2014.
69. *Newcomb’s Paradox – A Turing Machine Interpretation*, **Interdisciplinary Journal of Economics and Business Law**, Vol. 3, Issue 4, 2013.
70. *Stabilisation Policy – Phillips before the ‘Phillips Curve’* [jointly with Katherine Moos], **Global & Local Economic Review**, Vol. 18, No. 1, 2014.
71. *Constructive and Computable Hahn-Banach Theorems for the (Second) Fundamental Theorem of Welfare Economics*, **The Journal of Mathematical Economics**, Vol. 54, October, pp. 36-39, 2014.
72. *Albert Aftalion and Business Cycle Theory: A Note* [jointly with Stefano Zambelli & Ragupathy Venkatachalam], **Economia Politica, [Journal of Analytical and Institutional Economics]**, Vol. XXXI, No. 4, 2014.
73. *Behavioural Economics: Classical and Modern* [jointly with Ying-Fang Kao], **The European Journal of the History of Economic Thought**, Vol. 22, Number 2, pp. 236-271, 2015.
74. *Negishi’s Theorem and Method: Computable and Constructive Considerations*, **Computational Economics**, Vol. 45, Number 2, February, pp. 183-193, 2015.
75. *Simulation, Computation and Dynamics in Economics* (jointly with Stefano Zambelli), **Journal of Economic Methodology**, Vol. 22, Number 1, March, pp. 1-27, 2015.
76. *Alan Turing: A Forbidden Fruit, Its Serendipitous Fall, and a Poisoned Bite*, the **Interdisciplinary Journal of Economics and Business Law**, Vol. 4, Issue 1, 2015.
77. *de Finetti’s Theory of Probability and its Jaynesian Critique*, **Economia Politica, [Journal of Analytical and Institutional Economics]**, Vol. XXXII, No. 1, 2015.
78. *Richard Goodwin: The Indian Connection*, **Economic & Political Weekly**, Vol. L, No 15, April 11, pp. 80—84, 2015.
79. *Iteration, Tâtonnement, Computation and Economic Dynamics*, **Cambridge Journal of Economics**, Vol. 39, # 6, pp. 1551-1567, 2015.
80. *Perspectives on the Contributions of Richard. M. Goodwin*, **Cambridge Journal of Economics**, Vol. 39, # 6, pp. 1485-1496, 2015.

81. *The Kieler Kreis, GPSS 7, NSSR 7 & The New School*,  
**The Interdisciplinary Journal of Economics and Business Law**, Vol. 5, # 1, 2016.
82. *B. P. Adarkar – The Years of High (Monetary) Theory & the Theory of (Monetary) Policy*  
[jointly with Isabella Weber],  
**Economic & Political Weekly**, Vol. LI, No 14, April, 2, pp.62-69, 2016.
83. *Constructive and Arithmetic Game Theory: An Introduction to Euwe’s Constructive Classic*  
**New Mathematics and Natural Computation**, Vol. 12, No. 1, pp. 21–28, 2016.
84. *Notes on a ‘Constructive Proof of the Existence of a Collateral Equilibrium’* [jointly with V. Ragupathy],  
**Computational Economics**, Vol. 48, Issue 1, pp. 179-181, 2016.
85. *Time-to-Build, Travesse and (Nonequilibrium) Aggregate Fluctuations*, [jointly with N. Dharmaraj],  
Forthcoming in: the **International Journal of Computational Economics and Econometrics**, 2016.
86. *Varieties of Mathematics in Economics: A Partial View*, (jointly with Ilker Aslantepe),  
Forthcoming in: **New Mathematics and Natural Computation**, 2016.
87. *Seven Kinds of Computable and Constructive Infelicities in Economics*,  
**New Mathematics and Natural Computation**, Vol. 12, No. 3, pp. 219-239, 2016.
88. *Economic Theory A Century Ago*  
Forthcoming in: **The Interdisciplinary Journal of Economics and Business Law**, Vol. 6,  
Issue 1, 2017.

*Chasing a Few Hares – A. W. H. Phillips and his Times: A Review Article*, March, 2016.

### **Review Articles & Review Notes**

1. *A Review Essay on: Studies in Business-Cycle Theory* by R.E. Lucas, Jr.,  
(jointly with J.-P. Fitoussi),  
**Journal of Money, Credit, and Banking**, 19, #1, 1987.
2. **Money, the Labour Market and Growth in Disequilibrium Macrodynamics – A Review Article**  
**Zeitschrift für Nationalökonomie**, Vol. 78, #1, January, 2003, pp.83-96.
3. **Essays on the Nature and State of Modern Economics - A Review Article**,  
**Interdisciplinary Journal of Economics and Business Law**, Vol. 5, Issue 1, pp. 108-155.
4. **Universal Man: The Lives of John Maynard Keynes – A Review Note**,  
**Economic and Political Weekly**, Vol. LI, No 6, February, 6, 2015.

5. **Chasing a Few Hares – A. W. H. Phillips and his Times - A Review Article**,  
Forthcoming in: the **Australian Labour Relations Review**, 2017.

### **Contributions in Edited Volumes in 2010-16**

1. *A Computable Economist's Perspective on Computational Complexity*, in: **The Handbook of Complexity Research**, Chapter 4, pp. 36-83, Edited by: *J. Barkley Rosser, Jr.*, Edward Elgar Publishing Ltd, 2009.
2. *Credit Crisis Theory Redux: A Critique and a (Re)Construction*, in: **Understanding Ireland's Economic Crisis: Prospects for Recovery**, Chapter 10, pp. 233-248, Edited by *Stephen Kinsella* and *Anthony J. Leddin*, Blackhall Press, Dublin, 2010.
3. *Computation in Economics* (jointly with Stefano Zambelli), **The Elgar Companion to Recent Economic Methodology**, edited by *John Davis* and *Wade Hands*, Edward Elgar, Cheltenham, December, 2011.
4. *The Relevance of Computation Irreducibility as Computation Universality in Economics*, in: **Irreducibility and Computational Equivalence: Wolfram Science 10 Years After the Publication of A New Kind of Science**, edited by *Hector Zenil*, Springer-Verlag, December, 2012.
5. *Three Notes on Alan Turing's Contribution to Emergence, Problem Solving and Constructive Mathematics*:
  - a. Reflections on Wittgenstein's Debates with Turing during his *Lectures on the Foundations of Mathematics* (pp. 77-79);
  - b. Turing on *Solvable and Unsolvable Problems* & Simon on *Human Problem Solving* (pp. 339-342);
  - c. Four Traditions of *Emergence*: Morphogenesis, Ulam - von Neumann Cellular Automatas, the Fermi-Pasta-Ulam Problem and British *Emergentism* (pp. 759-762);in: **Alan Turing – His Work and Impact**, edited by *S. Barry Cooper* & *J. van Leeuwen*, Elsevier Science, 2013 [Book awarded the *R.R. Hawkins Prize* for 2014, by the **American Publishers Awards for Professional and Scholarly Excellence** and the Award for Excellence in the Physical Sciences and Mathematics].
6. *Postkeynesian Precepts for Nonlinear, Endogenous, Nonstochastic Business Cycle Theories*, in: **The Handbook of Post Keynesian Economics**, Vol. 2, edited by *Geoff Harcourt* and *Peter Kiesler*, Oxford University Press, Oxford, 2013.
7. *Foley's Thesis, Negishi's Method, Existence Proofs and Computations*, in: **The Festschrift in Honour of Professor Duncan Foley**, edited by *Lance Taylor*, *Armon Rezai* and *Thomas Michl*, Routledge, London, 2013.
8. *The Chimera of a Complete Analysis of Economic Dynamics, Resources, Production and Structural Dynamics*: **The Festschrift in Honour of Professor Alberto Quadrio Curzio**, edited by *Mauro Baranzini*, *Claudia Rotondi* and *Roberto Scazzieri*, Cambridge University Press, 2015.

9. *Frank Plumpton Ramsey* (jointly with V. Ragupathy), **The Handbook of the History of Economic Analysis**, edited by *Gilbert Faccarello & Heinz Kurz*, Edward Elgar Publishing, 2016.
10. *Herbert A. Simon* (jointly with Ying-Fang Kao), **The Handbook of the History of Economic Analysis**, edited by *Gilbert Faccarello & Heinz Kurz*, Edward Elgar Publishing, 2016.
11. *The Epistemology of Computation, Simulation and Dynamics in Economics*, Forthcoming in: **Handbook on Computational Economics and Finance**, edited by *Shu-Heng Chen & Mak Kaboudan*, Oxford University Press, 2016.
12. *Incomputability, Undecidability and Unsolvability in Economic Theory*, Forthcoming in: **The Incomputable**, edited by [*S. Barry Cooper*] & *Mariya Soskova*, Springer-Verlag, 2016.
13. *Friedman's Characterization of the Natural Rate of Unemployment*, **Milton Friedman – Contributions to Economics and Public Policy**, edited by *Robert A. Cord & J. Daniel Hammond*, Oxford University Press, Oxford, 2016.
14. *The Contributions of Richard Murphey Goodwin to Economics*, Forthcoming in: **The Palgrave Companion to Cambridge Economics**, edited by *Robert A. Cord*, Palgrave-Macmillan, 2016.
15. *The Contributions of Geoffrey Colin Harcourt to Economics*, Forthcoming in: **The Palgrave Companion to Cambridge Economics**, edited by *Robert A. Cord*, Palgrave-Macmillan, 2016.

### **Invited Lectures & Contributions: A Selection**

1. *Nonlinear, Evolutionary and Adaptive Dynamics in Behavioural Economics – Celebrating Richard Day's Contribution's*, Invited **Laudatio Lecture** at the **Conference in Honour of Richard Day**, Max Planck Institute, Jena, May, 16, 2008.
2. *Decision Theory and Choice – Computable Foundations for a Complexity Approach*, Invited Plenary Lecture, presented at the Conference on **Decision Theory and Choice: a Complexity Approach**, in Memory of Massimo Salzano, University of Salerno, June 19/20, 2008. Published in: **Decision Theory and Choices: A Complexity Approach**, edited by *Marisa Faggini & Concetto Paolo Vinci*, Springer-Verlag, Milano, 2010.
3. *Uncomputability and Undecidability in Economic Theory*. Invited Lecture at the **8<sup>th</sup> Unconventional Computing Symposium**, Vienna, 27-30, August, 2008.
4. *Modelling Economic Development without the Owl of Minerva*. Invited presentation at the International Conference on **Values and Rules for a New Model of Development** under the sponsorship of the *Centesimus Annus – Pro Pontifice* initiative. Rome, June 12<sup>th</sup> and 13<sup>th</sup>, 2009, **Pontifical Gregorian University**, Piazza della Pilotta 4, “Matteo Ricci” Convention Center.
5. *The Algorithmic Revolution in the Social Sciences: Mathematical Economics, Game Theory and Statistics*, Invited Lecture, presented at the **Workshop on Information Theoretic Methods in Science and Engineering**, Tampere, Finland, August, 17/19, 2009. The Lecture was published in the Proceedings of WITMSE 2009.



6. *Decision Theory and Choice – Computable Foundations for a Complexity Approach*, Invited Plenary Lecture, presented at the Conference on **Decision Theory and Choice: a Complexity Approach**, in Memory of Massimo Salzano, University of Salerno, June 19/20, 2008. Published in: **Decision Theory and Choices: A Complexity Approach**, edited by Marisa Faggini & Concetto Paolo Vinci, Springer-Verlag, Milano, 2010.
7. *The Epistemology of Computation in Economics*, Invited Lecture at the **Interdepartmental Research Centre in Epistemology and Economics**, University of Bologna, 31 March, 2011.
8. *DSGE and Beyond – Computable and Constructive Challenges*, Invited Lecture, National Bank of Poland Conference on **DSGE and beyond – Expanding the Paradigm in Monetary Policy Research**, Warsaw, 29 – 30, September, 2011. (Was NOT able to attend due to illness).
9. *The Pernicious Influence of Mathematics on the Theory of Economic Policy*, Invited Contribution to the **Cambridge Journal of Economics conference to commemorate Geoff Harcourt’s 80<sup>th</sup> Birthday**, June 25/26, 2011.
10. *Out-of-Equilibrium Modelling, Model Sequences and Traverse Dynamics*, Invited Contribution at the *Conference in Honour of Mario Amendola on Innovation, Economic Change and Policies: An Out-of-Equilibrium Approach*, University of Rome ‘La Sapienza’, 17/18 November, 2011.
11. *Incomputability in Economic Theories*, Invited Lecture at the **Newton Mathematics Institute Turing Centennial Conference**, Cambridge University, June, 2012.
12. *The Epistemology of Simulation, Computation and Dynamics in Economics*, Invited Keynote Lecture at the **World Congress on Social Simulation**, Taipei, Taiwan, September, 2012.

### Reviews in International Journals:

1. Review of L.L. Pasinetti, **Lectures on the Theory of Production**, *Journal of Economic Studies*, 7, #1, pp. 64-65, 1980.
2. Review of R. Pindyck (ed.), **The Production and Pricing of Energy Resources**, *Energy Economics*, 2, #4, pp. 251-252, 1980.
3. Review of G. Gandolfo, **Qualitative Analysis and Econometric Estimation of Continuous Time Dynamic Models**, *Economic Journal*, Vol. 92, # 368, December, pp. 981-983, 1982.
4. Review of J.-P. Fitoussi and E.S. Phelps, **The Slump in Europe**, in *Zeitschrift für Nationalökonomie*, 1990.
5. Review of R.M. Goodwin, **Chaotic Economic Dynamics**, in the *Journal of Economic Behaviour and Organization*, Vol. 17, #2, March, 306-310, 1992.
6. Review of S. Lombardini, **Growth and Development**, *Journal of Economic Dynamics and Control*, Vol. 29, #7, pp. 1259-1262, 1997.

7. Review of I. J. Ahluwalia and I.M.D Little (ed.), **India's Economic Reforms and Development: Essays for Manmohan Singh**, *The Economic Journal*, Vol. 109, # 459, pp. F811-F813, November, 1999.
8. Review of, D.Conniffe (ed.), **Roy Geary,1896-1983: Irish Statistician**, *Zeitschrift für Nationalökonomie*, 2000.
9. Review of S.N. Afriat, **The Market: Equilibrium, Stability, Mythology**, *Zeitschrift für Nationalökonomie*, Vol. 81, No. 3, pp.277-281, 2004.
10. Review of W. Brian Arthur, **Complexity and the Economy**, *Choice – Current Reviews for Academic Libraries*, July, 2015.

### **Contributions in Collected Essays, Festschrifts, etc:**

1. *On the Definition and Detection of Structural Change*, (with B. Rustem), in: M. Hoffman (ed.), Stochastic Differential Equations and Optimal Control Theory, Springer-Verlag, Heidelberg, 1980.
2. *Energy Planning*, [jointly with Richard Eden], Crown Agents Journal, Feb., 1980.
3. *Multisectoral Models and Joint Production*, [jointly with Lionello F. Punzo], in: Mathematical Methods in Economics, Chapter 4, pp. 57-92, edited by Frederick Van Der Ploeg; John Wiley & Sons, Chichester, 1984.
4. *On Rationalizing Expectations Using Rank-One Updates of the Kalman Filter* [jointly with B. Rustem], in H.A. Barker and P.C. Young (eds.), Identification and System Parameter Estimation - 1985, Pergamon Press, Oxford.
5. *The Knight and His Utility Function*, in W. Maihofer (ed.), Noi si Mura, Office for Official Publications of the European Communities, 1986.
6. *Constructing Objective Functions and the Complexity of the Policy Design Process*, [jointly with B. Rustem], in B. Martos, L.F. Pau and M. Zierman (eds.), Dynamic Modeling and Control of National Economies, Pergamon Press, Oxford, 1986.
7. *Keynes og 'Stockholm-Skolen'* (in Danish) SamfundsØkonomen, 4, 1986.
8. *Johan Åkerman*, in J. Eatwell, M. Milgate and P. Newman (eds.), The New Palgrave, Macmillan, London, 1987.
9. *Gustav Åkerman*, in J. Eatwell, M. Milgate and P. Newman (eds.), The New Palgrave, Macmillan, London, 1987.
10. *The (Nonlinear) Life and Economic Times of Richard M. Goodwin*, in K. Velupillai (ed.), Nonlinear and Multisectoral Macrodynamics: Essays in Honour of Richard Goodwin, Macmillan, London, 1989.
11. *Introduction to Recent Developments in Business Cycle Theory*, in Business Cycles: Theories, Evidence and Analysis, ed. by N. Thygesen, K. Velupillai and S. Zambelli, Macmillan, London, 1991.

12. *Introduction to Nonlinearities, Disequilibria and Simulation*, ed. by K. Velupillai, Macmillan, London, 1992.
13. *Exploring 'The Original Kalecki Model T': Simplifications and Generalizations*, in: The Harcourt Festschrift, ed. by P. Arestis, et. al., Routledge, London, 1997.
14. *New Tools for Making Economics an Inductive Science*, chapter 4, pp. 55- 81, in: **Money, Market and Method: Essays in Honour of Robert W. Clower**, edited by Peter Howitt, Elisabetta de Antoni and Axel Leijonhufud, Edward Elgar, Cheltenham, Gloucestershire, 1999.
15. *Rational Expectations Equilibria: A Recursion Theoretic Tutorial*, in: Macroeconomic Theory and Economic Policy – Essays in Honour of Jean-Paul Fitoussi, edited by K. Vela Velupillai, Routledge, London, 2004.
16. *The Consummate Macroeconomist: Jean-Paul Fitoussi*, in: Macroeconomic Theory and Economic Policy – Essays in Honour of Jean-Paul Fitoussi, edited by K. Vela Velupillai, Routledge, London, 2004.
17. *Preface and Summary*, to Macroeconomic Theory and Economic Policy: Essays in Honour of Jean-Paul Fitoussi, Edited by K. Vela Velupillai, Routledge, London, April, 2004.
18. *Introduction and Summary*, to the Metroeconomica Special Issue on *Computability, Constructivity and Complexity in Economics*, Metroeconomica, Vol. 55, Issue 2-3, pp. 115-20, May, 2004
19. *A Primer on the Tools and Concepts of Computable Economics*, in: Computability, Complexity and Constructivity in Economic Analysis, (ed. by K. Vela Velupillai), Blackwell's Publishers, Oxford, March, 2005
20. *The Impossibility of an **Effective** Theory of Policy in a Complex Economy*, in: **Complexity Hints for Economic Policy**, edited by *David Colander* and *Massimo Salzano*, pp. 273-290, Springer-Verlag, Berlin and New York, March, 2007
21. *Demystifying Induction and Falsification: Trans-Popperian Suggestions*”, Invited Paper presented at the *Popper Centennial* hosted by the Government of Austria and the Irish Academy of Sciences, September, 2002. Published in: Popper and Economic Methodology: Contemporary Challenges edited by *Tom Boylan* and *Pascal O’Gorman*, Chapter 8, pp. 143-163, Routledge, London, 2007.
22. *Hicksian Visions and Vignettes on (Non-Linear) Trade Cycle Theories*, Invited Lecture, Presented at the Hicks Centennial, held at the University of Bologna, 10-11, October, 2004; Revised version titled: *A Perspective on a Hicksian Non-Linear Theory of the Trade Cycle*, in: Markets, Money and Capital: Hicksian Economics for the 21<sup>st</sup> Century, Chapter 18, pp. 328-345, edited by *Roberto Scazzieri, Amartya Sen & Stefano Zamagni*, Cambridge University Press, Cambridge, 2008.
23. *Sraffa’s Economics in Non-Classical Mathematical Modes*, in: Sraffa or Alternative Economics edited by *Guglielmo Chiodi* and *Leonardo Ditta*, Chapter 14, pp. 275-94, Palgrave Macmillan, London, 2008.

24. *A Stochastic Complexity Perspective of Induction in Economics and Inference in Dynamics*, in: Festschrift in Honour of Jorma Rissanen on the Occasion of his 75<sup>th</sup> Birthday, Chapter 15, pp. 251-273, edited by *Peter Grünwald, Petri Myllymäki, Ion Tabus, Marcelo Weinberger & Bin Yu*, Tampere University of Technology, Tampere, Finland, 2008.
25. "A Computable Economist's Perspective on Computational Complexity", in: The Handbook of Complexity Research, Chapter 4, pp. 36-83, Edited by: *J. Barkley Rosser, Jr.*, Edward Elgar Publishing Ltd, 2009.

### **Contributions to Conferences and Symposia, etc:**

1. "A New Approach to the Bargaining Problem", (with B. Rustem), Presented at the **CIME** Conference held in Udine, Italy, March, 1978; published in M. Aoki and A. Marzollo (eds.), **New Trends in Dynamic System Theory and Economics**, Academic Press, London, 1979.
2. "Growth Cycles in Distributive Shares, Output and Employment", (with J.-P. Fitoussi), Invited presentation at the Conference on Macrodynamics, held at O.F.C.E, Paris, France, September, 1983; published in J-P. Fitoussi and P.A. Nuet (eds.), **MacroDynamique et Disequilibres**, Economica, Paris, 1987.
3. Comments on: "Un modele post-Keynesian de Development", by P.-A. Nuet and R. Topol, given at the Conference on Macrodynamics, held at O.F.C.E, Paris, France, September, 1983; published in J-P. Fitoussi and P.-A. Nuet (eds.), **Macro-Dynamique et Disequilibres**, Economica, Paris, 1987.
4. "What Have We Learned in the Path from Gödel and Turing to Artificial Intelligence", Invited Lecture at the Symposium on Knowledge and Organization held in Karlstad, Sweden, June, 1987; published in Åke E. Andersson, D. Batten and C. Karlsson (eds.), **Knowledge and Industrial Organization**, Chapter 3, pp.25-30, Springer-Verlag, Heidelberg, 1989.
5. "Hammond's 'Consequentialists' and Harsanyi's 'New Solutions'", presented at the I.C.O.S. Conference, Milano, January, 1985. [I understand this was published in an Italian Translation of the Proceedings of the above conference, edited by Lorenzo Sacconi, in 1987; however, I have neither been informed about it, nor have ever received a copy of the *alleged* publication].
6. "Recursive Parameter Estimation Using the Kalman Filter - An Application to Analyse Time-Varying Parameters and Structural Change", (with B. Rustem and J.H. Westcott), presented at the European Meeting of the Econometric Society, Helsinki, August, 1976. Discussion Paper #11; Department of Computing and Control, Imperial College of Science and Technology, 1976.
7. "On Detecting Time Varying Structures", (with B. Rustem), presented at the NBER Conference, Austin, Texas, May 1978. LSE Econometrics Discussion Paper A9, January, 1979.

8. "Constructing Objective Functions for Macroeconomic Decision Models: A Formalization of Ragnar Frisch's Approach", (with B. Rustem), presented at the 5th World Congress of the Econometric Society, MIT, Boston, 1985; Revised, June 1988. Discussion Paper #69, Programme of Research Into Optimal Policy Evaluation, Imperial College of Science and Technology.
9. "Gunnar Myrdal - The Universal Social Scientist (1898-1987)", presented at the Colloque Myrdal, Montreal, Jan., 1989; in: *G. Dostaler et. al.* [ed.], **Gunnar Myrdal et son Oeuvre**, Economica, Paris, 1990.
10. "The Political Arithmetics of the Stockholm School", Invited Presentation at the Conference to Commemorate the 50<sup>th</sup> Anniversary of Bertil Ohlin's EJ Article of 1937, Saltsjöbaden, Sweden; in L. Jonung (ed.), **The Stockholm School of Economics Revisited**, Cambridge Univ. Press, 1991.
11. Comments on: "On Formal Dynamics: From Lundberg to Chaos Analysis", by W.J. Baumol, Invited Commentator at the Conference to Commemorate the 50<sup>th</sup> Anniversary of Bertil Ohlin's EJ Article of 1937, Saltsjöbaden, Sweden; in L. Jonung (ed.), **The Stockholm School of Economics Revisited**, Cambridge University Press, 1991.
12. "Contribution to the Panel Discussion on the 'Relevance of the Works of the 'Stockholm School' for Modern Macroeconomics'", Invited Contributor at the Conference to Commemorate the 50<sup>th</sup> Anniversary of Bertil Ohlin's EJ Article of 1937, Saltsjöbaden, Sweden; in L. Jonung (ed.), **The Stockholm School of Economics Revisited**, Cambridge Univ. Press, 1991.
13. "Theories of the Trade Cycle: Analytical and Conceptual Perspectives and Perplexities", Plenary Lecture at the *International Economics Association* Conference on Business Cycles, held in Ryngsted Kyst, Denmark, June, 1989; in **Business Cycles: Theories, Evidence and Analysis**, ed. by N. Thygesen, K. Velupillai and S. Zambelli, Macmillan, London, 1991.
14. "Implicit Nonlinearities in Frisch on 'Propagation and Impulse' Mechanisms in the Analysis of Business Cycles", Invited Presentation at the Conference in Honour of Björn Thalberg, held in Elsinore, Denmark, June, 1990; in **Nonlinearities, Disequilibria and Simulation**, [ed. by K. Velupillai] Macmillan, London, 1992.
15. "Björn Thalberg - Teacher, Mentor, Friend", Invited Presentation at the Conference in Honour of Björn Thalberg, held in Elsinore, Denmark, June, 1990; in **Nonlinearities Disequilibria and Simulation**, ed. by K. Velupillai, Macmillan, London, 1992.
16. Comments on Goodwin's "A Chaotic Reformulation of Multiplier-Accelerator Models", Invited Discussant's Comments at the Conference in Honour of Björn Thalberg, held in Elsinore, Denmark, June, 1990; in **Nonlinearities, Disequilibria and Simulation**, ed. by K. Velupillai, Macmillan, London, 1992.
17. Comments on Lance Taylor's "Growth and Adjustment in Developing Countries: A Gap Model Approach", Invited Discussant's Comments at the Conference in Honour of Björn Thalberg, held in Elsinore, Denmark, June, 1990; in **Nonlinearities, Disequilibria and Simulation**, ed. by K. Velupillai, Macmillan, London, 1992.

18. "Macroeconomic Perspectives", (with J-P. Fitoussi), Invited Presentation at the Conference in Honour of Don Patinkin, held in the Hebrew University of Jerusalem, September, 1990; in: **Monetary Theory and Thought: The Patinkin Festschrift**, ed. by H. Barkai, S. Fischer and N.Liviatan, Macmillan, London, 1993.
19. "Coordinating the Not-Too Rational: Leijonhufvud's Macroeconomic Methodologies" (with Lionello Punzo), Invited Presentation at the Central Bank of Uruguay, Montevideo, Uruguay, September, 1993; in: **Inflation, Institutions and Information**, ed. by D.Vaz and K.Velupillai, Macmillan, London, 1996.
20. "Design and Anarchy in Research and Development: The Case of Computer Science", Invited Presentation at the *2nd Congress of the Americas*, February 27-March 1, 1997 at UDLA, Puebla, Mexico.
21. "Diophantine Decision Problems in Economics", Invited Plenary Lecture at the *VII Coloquio Nacional de Economía Matemática y Econometría*, UNAM, Mexico City, Mexico, 6-10 October, 1997.
22. "New Tools for Making Economics an *Inductive Science*" (Invited presentation at the Conference in honour of Robert W.Clower held in the department of economics at the University of Trento, May, 1996). In: **Money, Markets and Method: Essays in Honour of Robert W.Clower**, edited by Peter Howitt, Elisabetta de Antoni and Axel Leijonhufvud., Edward Elgar, Cheltenham, April,1999.
23. "Hayek and Pareto on Mechanisms for Decentralization", Invited presentation at a Conference on Decentralization held at the University of California at Irvine in February, 1999 and organised by the department of economics at UCI and the Institute of Mathematical Behavioral Sciences.
24. "Undecidable Economic Dynamics" Invited Paper, presented at the Society for Computational Economics annual conference held in Barcelona, July, 2000.
25. Using Ideas & Producing Ideas in Computable Endogenous Growth, **WP #97**, Department of Economics, NUI Galway & **DP #16**, Department of Economics, University of Trento, September, 2005; Presented at the 2<sup>nd</sup> Annual Conference on Growth & Development, held at the Indian Statistical Institute, Delhi, India, January 10-12, 2006.
26. "*Computable Foundations for the Mathematics of Experimental Economics: Some Perplexities*", Presented at the Experimental Economics Workshop on *Methodological Perplexities in Experimental Economics*, organized by CEEL, University of Trento & ALEX, Università' del Piemonte Orientale, Trento, 29-30, May, 2006.
27. "*Are there Computable Foundations for Artificial Economics: the Case of Agent-Based Economic Models*", Invited **Keynote Lecture** delivered at the Conference on Artificial Economics, Aalborg University, Aalborg, Denmark, 14-15, September, 2006.

### **Additional Papers:**

1. "A Note on the Scientific Contributions of Professor Nicholas Georgescu-Roegen", (with J-P. Fitoussi), mimeo, Florence, March, 1983.

2. "Economic Systems and Their Regulation", (with Richard Goodwin), EUI working paper #35, Florence.
3. "Nicky Kaldor - The Lord of Kings", mimeo, Aalborg, October, 1987.
4. "Constructive Foundations for Economics", (with John McCall), mimeo, UCLA, September, 1989; revised, May, 1991.
5. The Economics of Production-Based Indicators and the Purchasing Power of Currencies for International Economic Comparison, IECSE, The World Bank, March, 1994 (with the collaboration of Stefano Zambelli).
6. "Buddhism and the *Zeitgeist*", Galway & Trento, June, 2005.

### **Obituaries for 'Broadsheets'**

*Richard Goodwin*, in The Independent, London, 9 August, 1996.

*Herbert Simon*, in The Independent, London, 13 February, 2001.

*Jack Hirshleifer*, in The Independent, London, 20 October, 2005.

### **Organising Conferences, Summer Schools, Workshops, etc.**

- a). Organized invited sessions at the Society for Economic Dynamics, Western Economic Society, Southern Economic Society meetings and various IFAC/IFORS sessions, since the early 80s, for many years till the mid 90s.
- b). Initiated and helped coordinate the organization of the first 'Summer School' in Computable Economics in Aalborg, Denmark (August, 1992).
- c). Co-organiser (with Niels Thygesen) of an IEA-conference on Business Cycles in Copenhagen, Denmark in 1989.
- d). The main organiser of an international conference in honour of Björn Thalberg, held in Elsinore, Denmark in 1991.
- e). Organised a conference in honour of Axel Leijonhufvud, sponsored by the Central Bank of Uruguay, in Montevideo, in September 1993.
- f). Director and Principal Lecturer (10 Three-hour Lectures), *Summer School in Computable Economics*, University of Trento, Italy, September- October, 2000.
- g). Principal organizer of a Special Workshop on *Computability, Constructivity and Complexity in Economics*, held at the University of Trento, Italy, 6-7, October, 2002.
- h). Principal organizer of a Workshop on Computable Economics, held in Galway, Ireland, March 20-24, 2005.

- i). Organized, jointly with Professor Stefano Zambelli, a 2-day Tutorial Workshop on *Agent-Based Modelling in Economics and Finance*, May 19-20, 2008, under the auspices of CIFREM/Department of Economics, University of Trento, Italy [Distinguished Lecturer: Professor Shu-Heng Chen, National Chengchi University, Taipei, Republic of China].
- j). Organized, jointly with Professor Stefano Zambelli, a 2-day Tutorial Workshop on *Nonlinear Dynamics in Economic Modelling*, March, 13-14, 2009, under the auspices of CIFREM/Department of Economics, University of Trento, Italy.
- k). Organized, jointly with Professor Stefano Zambelli, a 2-day Workshop on *Nonlinearity, Complexity and Randomness*, October, 27/8, 2009, under the auspices of CIFREM/Department of Economics, University of Trento, Italy.
- l). *Celebrating the 60<sup>th</sup> Anniversary of the Phillips National Income Electro-Hydraulic Analogue Machine*, organised jointly with Stefano Zambelli, a 2-day Workshop held in Trento, on 7-8, December, 2010. The Proceedings of the Workshop were published in **Economia Politica**, Vol. XXVII, Issue 3, 2011.
- m). *Economic Development in South, Southeast and East Asia: A Retrospective and Some Prospects*, Conference held in Trento, May, 2012. Proceedings to be published in a Special Issue of the **Interdisciplinary Journal of Economics and Business Law**, 2013.
- n). *Surrogates, Humbugs and other Aggregate Parables- Half-a-Century of 'The Surrogate Production Function': A Symposium in Honour of Anwar Shaikh*, Conference held in Trento, May, 2012. Proceedings to be published in a Special Issue, edited by me, of **Global & Local Economic Review**, 2013.
- o). I have organised several 'mini' Workshops at NUI Galway and at the University of Trento in recent years. The topics of the Workshops have been: Computational Complexity in Economics, Computable Endogenous Growth Theory, Computational Economic Dynamics and Computable Macroeconomics.
- p). Over the years, since about 1981, I have been a member of the scientific committee or the organizing committee of various conferences, symposia, workshops, etc., in Denmark, Sweden, Italy and England.
- q). A series of contributions to the *OECD Blog*, since 2013, on *Computable Economics*, *Behavioural Economics*, *The State of Economic Theory in 2014* and *Development Economics without Growth Theory*.
- r). Invited to deliver a *Tutorial on Computable Economics* at the **CCR, 2016** Conference, to be held in Honolulu, Hawaii, January, 2016 (unable to attend due to ill-health).

### **Committee Work**

Member of various appointment, evaluation and promotion committees at Universities in Denmark, India, Italy, Mexico, Sweden, the UK, Malaysia and the USA .



## **Special and Named Lectures**

### Arne Ryde Lectures

I gave the fourth Arne Ryde Lectures at the University of Lund, Sweden in May 1994. The title of the series of lectures was: **Computable Economics**.

### Inaugural Lecture

My *Inaugural Lecture* at Queen's University was given on 16 January 1995. The title of the lecture was: **Theories of the Trade Cycle: From Pigou to Prescott**.

### Lectio Magistralis

I gave the annual, invited, *Lectio Magistralis* at the Faculty of Economics, University of Trento, in October, 2006. The title of the lecture was: **Varieties of Mathematics in Economics**.

### The Krishna Bharadwaj Lecture

I gave the 18<sup>th</sup> Annual **Krishna Bharadwaj Lecture** on: **Emergent Complexity: Evolution, Computation and Dynamics**, at Jawaharlal Nehru University, New Delhi, India, on 8<sup>th</sup> March, 2010.

### The Herbert Simon Lectures

I gave the 19<sup>th</sup> **Herbert Simon Lectures** on: **Behavioural Economics: Classical and Modern**, at the National Chengchi University, Taipei, Taiwan, on 17<sup>th</sup> & 23<sup>rd</sup> March, 2010.